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ABSTRACT

This document provides (1) an annotated bibliography of 30 studies of the educational and social benefits of tutoring programs for handicapped and non-handicapped tutors and tutees and the importance of training in tutoring programs, and (2) a 6-page summary of the findings. Annotations are organized in five sections concerning training in tutoring programs, academic and motivational benefits of tutoring programs, and social benefits for the handicapped and the non-handicapped. The summary of research findings suggests that tutees with trained tutors outperform tutees with untrained tutors. Tutoring programs can produce significant academic gains. Some programs help motivate low-achievers, disadvantaged children, and disinterested pupils. Some produce gains in personal adjustment, self-esteem, social acceptance, school attitude, and social interaction in both handicapped and non-handicapped tutors and tutees. (RH)

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AN ANNOTATED BIBLIOGRAPHY OF THE LITERATURE DEALING WITH THE EDUCATIONAL AND SOCIAL BENEFITS OF TUTORING PROGRAMS

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INTRODUCTION

The regular classroom teacher in the public schools, as a result of Public Law 94-142, usually has several pupils with learning problems. With an emphasis on the child being placed in the least restrictive environment, the regular classroom teacher may have, in class, pupils with learning disabilities, emotional problems, or mental handicaps. Other "regular" students may be unmotivated. Tutoring programs are one way of ensuring that mainstreamed and regular pupils receive individualized instruction. Although not all tutoring programs can meet the total needs of any one student, many tutoring programs have produced various academic, motivational, and social gains for both handicapped and non-handicapped tutors and tutees.

STATEMENT OF THE PROBLEM

Tutoring programs have many educational and social benefits for tutors and tutees.

PURPOSE OF THE STUDY

The purpose of the study was to examine the educational and social benefits of tutoring programs for handicapped and non-handicapped tutors and tutees. The study also examined the importance of training in tutoring programs.

ORGANIZATION OF THE STUDY

The study took the form of an annotated bibliography. The first major section dealt with training of tutors. The second major section dealt with the educational benefits of tutoring programs. This section was divided into studies which dealt with academic and motivational benefits. The third major section dealt with studies regarding the social benefits of tutoring programs. This final section was divided into studies which discussed the benefits of tutoring programs for handicapped and non-handicapped tutors and tutees.

LIMITATIONS OF THE STUDY

Because no clear-cut definitions could be found for cross-age and peer tutoring, no distinction was made between the two in the study.

DEFINITIONS OF TERMS

base rate--the proportion of persons who succeed prior to the use of a test; represents the proportion of correct decisions which are made when selecting individuals, without the use of the particular test under evaluation (Good: 57)

behavior modification--technique for dealing with maladaptive behavior either through classical or operant conditioning (Good: 59)

confirmation--information given the "student" concerning the correctness or incorrectness of the responses he makes to programmed instructional materials (Good: 128)

control (statistical)--the maintenance of satisfactory uniformity by successive sampling of items to ensure that they all fall within pre-determined limits of quality (Good: 136)

feedback--error-correcting information returned to the control center of servomechanism enabling it to offset deviations in its course toward a particular goal (Good: 237)

model--means of transferring a relationship or process from its actual setting to one in which it can be more conveniently studied (Page: 223)

motivation--psychological term referring to behavior brought about by physiological or social needs, and directed towards goals (Page: 226)

paraprofessional--person who has received minimal training in a profession and works as an aide for those who are fully qualified (Page: 258)

role--the behavioral patterns of functions expected or carried out by an individual in a given societal context (Good: 502)

roleplay--an instructional technique involving a spontaneous portrayal (acting out) of a situation, condition, or circumstance by selected members of a learning group (Good: 502)

self-image--the perceptual component of self; the picture one has of the impressions he makes on others (Good: 525)

socioeconomic status--the level indicative of both the social and the economic position of an individual or group (Good: 558)

status--position within the social structure (Good: 558)

tutee--a tutor's student (Page: 348)

tutor--person who gives remedial or additional instruction (Page: 348)

Training in Tutoring Programs

Conrad, Eva E. "The Effects of Tutor Achievement Level, Reinforcement Training, and Expectancy on Peer Tutoring" 18 July 1975, ED 116 807

In a Tuscon study, 112 high-achieving second graders tutored 112 first graders in reading sight words. Half of the tutors were trained and the other half were not trained. Before participating in the tutoring process, tutors were given high or low expectations for their tutees. Tutor expectancies did not affect the performance of tutees, but tutees with trained tutors outperformed tutees with untrained tutors.

Gladstone, Bruce W. and James A. Sherman. "Developing Generalized Behavior Modification Skills in High School Students Working with Retarded Children" Journal of Applied Behavior Analysis 8:2, summer 1975, 169-180

Seven high school trainees (age 15-18) each attempted to train two profoundly retarded children to respond to simple commands like, "Bring me the ball." Training featured videotapes modeling the correct procedure, corrective feedback, and praise. Although none of the trainees could get their tutees to respond to instructions before training, four of seven trainees were successful following training. It was hoped that subjects could be trained, in the future, in such skills as dressing and feeding themselves.

Jason, Leonard H. and Susan Frasure. "Establishing Supervising Behaviors in Eighth Graders and Peer Tutoring Behaviors in First Graders" May 1979, ED 176 165

Undergraduate university students taught supervising skills to eighth graders who then supervised first graders in a peer tutoring program. The study took place in an inner-city Chicago parochial school where there was neither a guidance counselor or school psychologist. The skills which were taught in the program included corrective feedback, restating questions, and contingent praise. It was found that the eighth graders effectively supervised the first graders. The authors noted that although most tutoring programs attempted to enhance social skills or remediate learning disorders, they felt tutoring programs could also foster academic and interpersonal skills.

Niedermeyer, Fred C. "Effects of Training on the Instructional Behaviors of Student Tutors" The Journal of Educational Research 64:3, November 1970, 119-123

This study looked at the different behaviors exhibited by trained and untrained tutors. An equal number of trained and untrained fifth grade pupils worked with tutees in a kindergarten reading program. It was found that trained tutors were more likely to engage the pupil in friendly conversation, confirm, praise, give the correct answer when the pupil was incorrect and elicit the correct response before proceeding with the lesson. Niedermeyer noted the importance of training in tutorial programs.

Plumb, Geraldine and John C. Wilkinson. "An Empirical Investigation of the Use of Paraprofessionals and Student Tutors in Remediating Reading Deficient Primary Grade Students" April 1974, ED 090 524

This study examined the use of paraprofessionals, called tutor managers, in supervising and training student tutors. In this Boise elementary school study, tutor managers gave pre and posttests, prepared student logs, and kept student profile sheets. The tutored group dramatically outperformed the control group in just six weeks. The program was implemented at a cost of $13.44 per child.

Robertson, Douglas J. "The Effects of an Intergrade Tutoring Experience on Tutor Self-Concept" 30 April 1971, ED 059 769

In a California study, ninety-three fifth graders tutored thirty-one first graders thirty minutes a day, three days a week for two months. Each tutor was placed in a group which was trained but did not tutor, a group which was trained and allowed to tutor, or a control group. The tutors were given a well-defined set of tasks to accomplish, demonstrations, roleplays, told of the purpose and expected outcomes of the program, and involved in the evaluation process. There was a significant increase in self-concept in those pupils who were trained and given an opportunity to tutor.

Academic Benefits of Tutoring Programs

Cohen, Stewart and Collette A. Pryzbycien. "Some Effects of Sociometrically Selected Peer Models on the Cognitive Styles of Impulsive Children" Journal of Genetic Psychology 124, 1974, 213-220

In this study, fourth and sixth grade boys and girls were trained to model reflective verbal behavior. Participants in the study were of average intelligence and from low-middle income families. It was found that boys more commonly exhibited impulsivity. Impulsive children were able to increase their response time an average of 8½ seconds. The program was more effective with sixth graders than with fourth graders.

Collins, Joseph and Michael J. Calevro. "Mainstreaming Special Education Using a Peer Tutoring System and a Minimum Objective Curriculum for Nine Eighth Grade Students" May 1974, ED 102 788

Nine Vermont eighth grade pupils who qualified for special education services were tutored one-half hour daily for two months. Tutors gave verbal praise for correct answers and encouraged tutees to rework incorrect problems in order to find their own mistakes. A 90% success rate was required before the tutee was allowed to proceed to the next unit. All but one tutee jumped two grade levels in achievement. The author, however, noted that tutees were reviewing previously learned skills, rather than new material.

Graves, Michael. "A Highly Structured Tutoring Program for Secondary Students Seriously Deficient in Reading Skills" May 1977, ED 145 370

In a study sponsored by the University of Minnesota, college students and graduates taught reading skills to 25 seventh through ninth graders. Three fifty minute sessions consisted of a pre-reading activity, reading activity, post-reading activity, individual skills work, and a game. Seventeen of twenty-five tutees made gains at twice the average rate. Tutor training packets were developed and the importance of on job training was noted. Because the author felt the program was not economically or logistically feasible for most schools, he recommended using high schoolers for tutors.

Levenkron, Jeffrey, David A. Satogrossi, and Daniel O'Leary. "Increasing Academic Performance through Contingent Access to Tutoring" Psychology in the Schools, 1974, 201-206

Undergraduate college students tutored sixteen second graders in math. Tutors used games and worksheets to teach simple addition and subtraction problems with no borrowing and carrying. Tutors worked with groups of four two mornings a week. Fifteen of the sixteen tutees improved their skills dramatically with those who received no reward for minimal performance making the least progress.

Porter, Thomas J. and Edwin Hamilton. "Junior-Senior High Tutor/Aide Program at Malcolm X Elementary School: Final Report" August 1975, ED 120 249

Junior and senior high schools pupils tutored elementary pupils in reading, math, and special interests. Both control and experimental groups showed improvement in math and reading skills. Teachers felt the tutors had a positive effect on the learning environment. The authors noted that the program was on its way to meeting its goals.

Motivational Benefits of Tutoring Programs

Allen, Vernon L. and Robert Feldman. "Learning Through Tutoring: Low-Achieving Children as Tutors" The Journal of Experimental Education 42:1, fall 1973, 1-5

Low-achieving fifth grade students tutored third graders in science, language, or reading. A control group studied alone. Those who tutored had better performance than those who were tutored or studied alone. Tutors performed poorly initially but their performance later improved dramatically. It was theorized that serving as a teacher may have produced a change in the tutors' behavior and attitudes.

Boise City Independent Schools. "Boise Structured Tutoring Program" 1975, ED 106 799

In a Title I program, fifth and sixth graders tutored first, second, and third graders in reading skills. Instructional objectives were clearly defined, instruction geared to mastery of skills, and tutors attempted to individualize instruction. The training of tutors included testing, learning how to praise, roleplays, and feedback. The tutors were carefully supervised by paraprofessionals called "tutor managers". The tutees made significant gains in reading skills and displayed a more possitive attitude toward reading.

Hawaii University. "Buddy-Tutor Project, Hilo Intermediate School. Final Report" 1974, ED 126 208

This Title I program was developed by the University of Hawaii to help educationally deprived children in Hilo, Hawaii improve math, reading, and communication skills. The program elicited support from parents, used positive nonacademic activities to motivate students, and included a summer program. Participants in the program made rapid growth in math skills and displayed a more positive outlook toward school and improved behavior.

Heintz, Paul. "High School Peer Tutoring (Homework Helpers) Program: School Year 1974-1975" 1975, ED 137 451

This voluntary Title I program was conducted in New York City with 4378 high school students who either were two years behind in math, reading, or language or who had English as a second language. The program had a full-time coordinator and assistant as well as paid tutors who were high school or college students and of similar ethnic background as their tutees. Strong points of the program included excellent training, teacher workshops, and staff interest. Tutees were also given an opportunity to learn in an environment not associated with past failures.

Mohan, Madan. "Peer Tutoring as a Technique for Teaching the Unmotivated" January 1972, ED 061 154

This peer tutoring program was designed for unmotivated children in grades two through eight and focused on math skills. Children who were considered unmotivated exhibited a lack of goal directedness, energy, and emotional response to objects or situations. The program featured trained tutors and a wide variety of demonstration techniques. Although little measurable gains in self-concept were noted, there was a marked increase in math skills and motivation. Other positive effects were that tutors showed more responsibility, and all participants experienced feelings of belonging, affection, and a sense of achievement program received a favorable response from teachers, students, and parents.

Rie, Herbert E. "Therapeutic Tutoring for Under-Achieving Children" Professional Psychology 5, February 1974, 70-75

This study focused on establishing a positive relationship, providing multiple modes of stimulation and response, facilitating active mastery, using active arousal, and disconfirming the child's aversive expectations. Pupils averaged eight years of age and were tutored for an average of fourteen 42 minute sessions. Although most of the tutees showed improvements in reading, spelling, and arithmetic, this seemed to be unrelated to age and sex. The author noted the importance of attending to the child's feelings and attitudes, as well as their academic performance.

Social Benefits for the Non-handicapped

Damico, Sandra and Kathy Watson. "Peer Helping Relationships - An Ecological Study of an Elementary Classroom" April 1974, ED 090 458

Thirty third, fourth, and fifth graders in a self-contained classroom worked at their own pace individually and in small groups. Although there was no significant change in social acceptance, there was a notable growth in school attitude and self-esteem. There was little cross-sexual interaction and males were more accepting of other males than females of females. It was also noted that 50% of high helpers were youngest children in their families.

Ehly, Stewart. "Experimental Analysis of Some Process Variables in Peer Tutorial Learning: a Preliminary Report" April 1980, ED 198 078

"This study was designed to determine the relationship between tutor-tutee characteristics, tutorial processes, and learning outcomes in a peer tutorial program of spelling with sixth grade children." The only predictor of learning outcomes was pre-tutorial spelling ability. Children who liked their tutorial partners were more likely to give them a higher competency rating. Same-sex pairs were more likely to view each other positively, as a result of tutoring, than opposite sex pairs. Those pairs with similar liking scores before tutoring tended to experience a large shift in liking in a negative direction.

Rosen, Sidney, Evan R. Powell, David B. Schubot and Patricia Rollins. "Competence and Tutorial Role as Status Variables Affecting Peer-Tutoring Outcomes in Public School Settings" Journal of Educational Psychology 70:4, 1978, 602-612

In this study, 107 same-sex junior high pairs participated in a math tutoring program. Tutors had greater, equal, or lesser competence in math then their tutees. The subjects were divided into thirds and exhanged roles every two weeks. There was more satisfaction in the role of tutor than that of the tutee, especially if tutors were more competent than their tutoring partner.

Rosen, Sidney, E. R. Schubot, and P. Rollins. "Morale and Performance of Same-Age Peer Tutoring Partners as a Function of Relative Status and Equity" May 1977, ED 145 506

In a study conducted by the University of Georgia, 47 same-sex pairs of sixth graders tutored three days a week in math. After two weeks, the partners exchanged roles. It was found that there was greater satisfaction in the role of tutor than the role of tutee. It was hoped that students who might not otherwise accept help, would allow themselves to be tutored if they were also allowed to tutor. Although superior tutors didn't like being a tutee, pairs of equal ability had more positive feelings about the program.

Sheehan, Linda Devin and Vernon L. Allen. "Effects of Pupil Imitation on Male and Female Tutors" 1973, ED 090 468

Seventy-two sixth grade boys and girls tutored seventy-two second graders of the same sex in reading. Opinion forms regarding the tutoring program were completed by the researchers to give the appearance that the tutees were somewhat, moderately, or greatly like their tutors. These opinion forms were then shown to the tutors who had already completed similar forms. Female tutors liked to be imitated by their tutees but boys reacted less favorably to tutees who imitated them to a significant degree. The authors theorized that independence was a trait reinforced in males.

University of Hawaii. "The Honolulu Buddy System Project, Training, Evaluation, and Research: Final Report" November 1973, ED 126 206

In this Title IV study, the public school, family courts, and welfare system worked with juvenile delinquents to promote nondelinquent behavior and occupational or academic achievement. Each paid undergraduate tutor called a "buddy" met with three students at least once a week, as well as with the tutees' counselor, family, and probation officer. Although it was difficult to secure parental cooperation, positive outcomes of the program were better school performance and attendance and fewer criminal offences.

Social Benefits for the Handicapped

Custer, Jeanene and Russell Osguthorpe. "Improving Social Acceptance by Training Handicapped Students to Tutor Their Non-handicapped Peers" 1980, ED 217 665

Fifteen fifth and sixth grade mentally handicapped students taught their non-handicapped peers the alphabet, nineteen simple sentences and the song "Hello Again" by Neil Diamond in sign language. Social interaction was measured at lunch and recess before and after the tutoring sessions. The tutors were taught to demonstrate the sign for the tutee, allow the tutee to do the sign alone, and give the tutee praise or corrective feedback. Positive results of the study included a substantial increase in social interaction between handicapped and non-handicapped pupils and an increased confidence in the handicapped child's learning ability by their parents.

Gerry, Susan. "Peer Tutoring and the Special Needs Student: A Model High School Program" 1984, ED 245 463

This study dealt with a tutoring program in a large urban high school in Boston. The goal of the program was to encourage interaction between severely handicapped and "regular" high school students by having the severely handicapped students participate in student assemblies, perform errands, and take part in physical activities with their non-handicapped peers. In addition, non-handicapped peers also tutored the handicapped students. It was hoped that the non-handicapped tutors would be more aware of the needs of the handicapped as a result of the program. The author noted that most studies of this type have been conducted with elementary age students.

Kux, Jo Ann. "The Effects of a One-to-One Tutorial Relationship Upon Pupil's Attitude Toward Reading, Selected Personality Factors and Reading Achievement" Southern Journal of Educational Research 7:1, 1973, 21-30

Elementary and special education major students at the University of Southern Mississippi tutored 35 third and fourth grade pupils in reading for 250 minutes per week for five weeks. The tutors individualized each tutee's program to remediate weaknesses. Although there was little change in the tutee's attitude toward reading, gains were made in total personal adjustment, reading comprehension, and reading achievement.

Lazernon, David B. "'I Must be Good if I Can Teach' - Peer Tutoring with Aggressive and Withdrawn Children" Journal of Learning Disabilities 13:3, March 1980, 152-157

Sixty aggressive or withdrawn children in grades two through eight were assigned to be tutors, tutees, or to be a part of a control group. Tutors were trained to correct and reinforce their tutees in an easygoing, nonhostile manner. Tutors were allowed to manipulate instructional materials and meet with tutees as often as they wanted. All active participants experienced gains in self-concept and improvements in behavior, as well as a renewed interest in school. Children who were usually withdrawn became more outgoing when tutoring.

Miller, Carol T. and Elizabeth D. Gibbs. "High School Students' Attitudes and Actions Toward 'Slow Learners'" American Journal of Mental Deficiency 89:2, September 1984, 156-166

In this study, 45 junior and senior high national honor society members tutored ninth and tenth grade pupils who were at least one grade level behind in academic achievement. The best predictor of peer tutoring behavior was the pupils' intention to tutor. It was also found that tutors perceived their own tutees more positively than the other tutees in general.

Osguthorpe, Russell and others. "Reverse-Role Tutoring: The Effects of Handicapped Students Tutoring Regular Class Students" April 1985, ED 255 017

In the first study, 39 fourth, fifth, and sixth grade learning and behaviorally handicapped students tutored regular class first graders in reading. Positive results of the study were that the handicapped tutors improved their reading scores and were more positive in their perceptions regarding their general abilities. The first grade tutees also had higher reading levels after tutoring than the control group. Most parents and teachers saw noticeable improvements in the children's self-esteem and social acceptance. The second study involved mentally handicapped students teaching sign language to their non-handicapped peers. (Custer and Osguthorpe, 1980)

Roach, Jacquelyn, Phyllis Paolucci-Whitcomb, Herman W. Meyers, and Dvenna A. Duncan. "The Comparative Effects of Peer Tutoring in Math by and For Secondary Special Needs Students" The Pointer 27:4, summer 1983, 20-24

Fifty-eight mildly mentally handicapped pupils divided into three groups. Students in the three groups either worked in pairs, were peer tutored, or worked alone. Tutors were trained to establish rapport, secure attention, stay on task, and record tutee progress. Although students who served as tutors or tutees made more progress than the control group, those students who tutored first were the most satisfied.

SUMMARY

The vast majority of studies reviewed featured training sessions for tutors. These usually involved learning such skills as establishing rapport with tutees, corrective feedback, and praise. Some programs included videotapes modeling the correct behaviors (Gladstone and Sherman, 1975) or roleplays (Robertson, 1971).

Jason and Frasure (1979) used undergraduate students to train eighth graders to supervise first graders in a peer tutoring reading program. The eighth graders were found to be effective supervisors. Plumb and Wilkinson (1974) used paid paraprofessionals to train student tutors. This Boise elementary program was implemented at a cost of $13.44 per child.

Niedermeyer (1970) found that trained tutors were more likely, than untrained tutors, to engage the pupil in friendly conversation, confirm, praise, give the correct answer when the pupil was incorrect, and elicit the correct response before proceeding with the lesson. Conrad (1975) found that tutees with trained tutors outperformed tutees with untrained tutors. In a study by Gladstone and Sherman (1975), no high school trainees were able to get profoundly retarded subjects to obey simple commands before training. However, after training, four out of seven trainees were successful. Robertson (1971) divided fifth

graders into three groups. The first group was trained and allowed to tutor, the second group was trained and not allowed to tutor, and the third group served as a control. Those students who were trained and allowed to tutor experienced a significant increase in self-concept as compared with the other two groups.

Some tutoring programs produced significant academic gains. In a study by Collins and Calevro (1974), eight out of nine tutees jumped at least two grade levels in math. Graves (1977) found that seventeen of twenty-five tutees in a reading program made gains at twice the average rate. Fifteen of sixteen second graders in a math tutoring program (Levenkron, Satogrossi, and O'Leary, 1974) made remarkable gains in doing simple addition and subtraction problems. However in a study by Porter and Hamilton (1975), no statistical differences were found between experimental and control group scores in math and reading. Cohen and Przybycien (1974) noted that impulsive children were able to lengthen their response time an average of eight and one-half seconds after viewing children who modeled reflective verbal behavior.

In some cases, tutoring programs were effective in motivating low-achievers (Allen and Feldman, 1973), children from disadvantaged backgrounds (Hawaii University, 1974), or the unmotivated (Mohan, 1972). In a study by Rie, (1974), tutors were encouraged to use multiple modes

of stimulation, active arousal, and establish a positive relationship in order to motivate tutees. Part of the success of a New York City study (Heintz, 1975) was attributed to the fact that tutees were given an opportunity to learn in an environment not associated with past failure. An Hawaii University study (1974) used parental support and nonacademic activities to help motivate tutees. Participants in the study improved reading and math skills and displayed a more positive attitude toward reading. Mohan (1972) found that both tutees and tutors made gains in math skills, self-concept, and motivation. Allen and Feldman (1973) found that tutors made dramatic improvements in science, language, and reading. It was theorized that serving in the role of teacher motivated these tutors. Children who participated in a Boise City study (1975) displayed a more positive attitude toward reading following tutoring.

Many tutoring programs had positive social benefits for tutors and tutees. In a University of Hawaii study (1973), juvenile delinquents displayed better school attendance and fewer criminal offences after participating in the Buddy System Project. Participants in an elementary program (Damico and Watson, 1974) showed no significant changes in social acceptance but showed growth in their school attitude and self-esteem.

In two different studies by Rosen (1977 and 1978),

it was found that there was more satisfaction in the role of tutor than that of tutee. Ehly (1980) found that tutees who liked their tutors perceived the tutors to be more competent. Same-sex tutoring pairs viewed each other more positively than opposite-sex pairs. In a study by Sheehan and Allen (1973), it was found that female tutors enjoyed being imitated, to a significant degree, more than male tutors.

Many tutoring programs were specifically designed to help mentally or behaviorally handicapped tutees. A study by Kux (1973) individualized each tutee's reading program to remediate weaknesses. Although there was little change in attitude toward reading, gains were made in reading achievement, reading comprehension, and total personal adjustment. Miller and Gibbs (1984) found that non-handicapped tutors viewed their own tutees more positively than other mentally handicapped tutees in the program. Gerry (1984) had non-handicapped pupils tutor severely handicapped tutees in a high school program. Gerry also increased the visibility of the severely handicapped students in the school by having them perform errands and participate in assemblies. It was hoped that the non-handicapped tutors would be more aware of the needs of the severely handicapped when encountered later in the work place.

Some tutoring programs featured mentally or beha-

viorally handicapped pupils as both tutors and tutees. Lazernon (1980) found that withdrawn and aggressive children experienced gains in self-concept, improved behavior, and a renewed interest in school after participating in a tutoring program. In a 1983 study (Roach et. al), both mildly mentally handicapped tutors and tutees made academic gains. However, those participants who tutored first, were the most satisfied.

Some studies featured reverse-role tutoring in which handicapped pupils tutored their non-handicapped peers. In a study by Custer and Osguthorpe (1980), mentally handicapped tutors taught sign language to non-handicapped tutees. As a result of the program, tutors experienced more social interaction with their non-handicapped peers. In another reverse-role reading tutoring program (Osguthorpe, 1985), handicapped tutors improved their own reading scores, as well as those of their non-handicapped tutees. Tutors also experienced gains in self-esteem and social acceptance.

CONCLUSIONS

It was concluded that tutees with trained tutors outperformed tutees with untrained tutors.

It was also concluded that tutoring programs can produce significant academic gains.

It was found that some tutoring programs helped motivate low-achievers, disadvantaged children, and disinterested pupils.

Some tutoring programs were found to produce gains in personal adjustment, self-esteem, social acceptance, school attitude, and social interaction in both handicapped and non-handicapped tutors and tutees.

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